

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott Walker, Governor
Cathy Stepp, Secretary

West Central Region Air Program
LaCrosse Area Office
3550 Mormon Coulee Road
LaCrosse, Wisconsin 54601
Fax 608-785-9990

September 27, 2012

FILE CODE: 4530

FID #: 627005280

Erica Grant, Operations Manager
Atlas Resin Proppants, LLC
P.O. Box 100
Taylor, WI 54659

Subject: Letter of Noncompliance

Dear Ms. Grant:

The Department of Natural Resources has reason to believe that the Atlas Resin Proppants (Atlas) facility in Taylor, Wisconsin, is not in compliance with Wisconsin air pollution control rules.

Air pollution control operation permit #627005280-P10 was issued to Atlas on January 3, 2012. Permit conditions I.A.1.a.(2)(a), I.B.1.a.(2)(a), and I.C.1.a.(2)(a), require that silo filter stacks S14, S15, and S22 be at least sixty feet above ground level. Documentation provided by Atlas to the department on September 12, 2012, indicates that stacks S14 and S15 are 46.6 feet and S22 is 52.2 feet above ground level.

Based on this information, the department believes that the facility is not operating in compliance with these permit conditions.

The department requests that Atlas respond in writing to this Letter of Noncompliance by October 26, 2012, by providing a plan to bring these stacks into compliance.

If you have any questions regarding this matter, please contact me at 608-785-9975.

Sincerely,

Martin Sellers
Air Quality Engineer

cc. Jeff Johnson, Air Supervisor, WCR
Martha Makhholm, AM/7
Dawn Tiffany, Atlas Resin Proppants, LLC



October 19, 2012

via e-mail to Marty.Sellers@wisconsin.gov

Mr. Martin Sellers
Air Quality Engineer
West Central Region Air Program, LaCrosse Area Office
Wisconsin Department of Natural Resources
3550 Mormon Coulee Road, Room 104
LaCrosse, WI 54601

Subject: Atlas Resin Proppants, LLC – Taylor Facility (FID #627005280)
Response to Letter of Noncompliance
WDNR Permit No. 627005280-P10

Dear Mr. Sellers:

The purpose of this letter is to respond to your September 27, 2012, letter of noncompliance regarding Atlas Resin Proppants, LLC's (Atlas) facility located in Taylor, Wisconsin (FID 627005280). The subject of the letter of noncompliance pertains to the as-built stack heights for the three sand receiving silos associated with Tower A versus minimum permitted stack heights. Specifically, Conditions I.A.1.a.(2)(a), I.B.1.a.(2)(a) and I.C.1.a.(2)(a) require that each silo stack (S14, S15 and S22) be at least 60 feet above the ground. These permitted stack heights correspond to those that were used in air dispersion modeling, which was performed to demonstrate compliance with applicable particulate ambient air quality standard (PM₁₀) at the time the sources were constructed. The as-built stack heights versus the minimum permitted stack heights are as follow:

<u>Tower A</u>	<u>Point</u>	<u>As Built Discharge Height (Diameter)</u>	<u>Permit Height (Diameter)</u>
S14, C14	Silo Vent	46' 7-5/16"	60'
S15, C15	Silo Vent	46' 7-5/16"	60'
S22, C22	Silo Vent	52' 2-3/16"	60'
S20, C20	Baghouse	18' 6-3/16" (28" Ø)	16' (30" Ø)
S50, C50	Scrubber	90'	75'

<u>Tower B</u>	<u>Point</u>	<u>As Built Discharge Height (Diameter)</u>	<u>Permit Height (Diameter)</u>
S114, C114	Silo Vent	65' 5-5/8"	60'
S115, C115	Silo Vent	65' 5-5/8"	60'
S120, C120	Baghouse	18' 6-3/16" (28" Ø)	16' (30" Ø)
S150, C150	Scrubber	92' 3"	75'

Based on this information, the as-built stack heights for S14, S15, and S22 are less than the respective permit heights. However, the as-built stack heights for the balance of the stack-vented sources at the facility are higher than required in the permit, and the diameters of the two baghouse exhaust stacks (S20 and S120) are smaller than the maximum that is allowable (as indicated in parentheses, above). Taller stack heights and smaller exhaust diameters enhance dispersion and reduce ambient impacts.

Atlas retained TRC Environmental Corporation (TRC) to update the dispersion model to determine if the as-built conditions satisfied the PM₁₀ ambient air quality standards at the time the sources were constructed. As indicated in the modeling results summarized in [Attachment 1](#), the as-built conditions demonstrate attainment of these standards. Although the as-built stack heights for S14, S15, and S22 are less than that which is specified in the permit, based on these results and the associated modeling input files (enclosed), Atlas maintains that these differences did not result in an exceedance of the applicable particulate ambient air quality standards. Consequently, we plan to request a revision of the current operating permit to change the permitted stack parameters to the as-built conditions listed above.

Your time and consideration of this matter are much appreciated. Should you have any questions, please call our environmental consultant, Mr. Joe Liello (TRC) at 262-901-2135, or me at 715-662-2200, ext. 231.

Sincerely,

Atlas Resin Proppants, LLC



Erica R. Grant
Operations Manager

cc: Jeffrey Johnson, WDNR (via e-mail: jeffrey.johnson@wisconsin.gov)
Joe C. Liello, TRC Environmental Corporation

ATTACHMENT 1

Air Dispersion Modeling Report

**As Built Air Quality Impact Analysis for Atlas Resin Proppants, LLC
Taylor, Wisconsin –October 2012**

Background

Atlas Resin Proppants, LLC (Atlas) operates a sand coating plant in Taylor, Wisconsin (FID#627005280). This facility is comprised of two sand coating lines, which are designated as Tower A and Tower B. The majority of the emission sources associated with Tower A were installed under Wisconsin Department of Natural Resources (WDNR) Permit No. 05-JAJ-015, which was reissued to Atlas on March 30, 2005. This permit authorized the construction of two raw sand receiving silos for which the corresponding stack numbers are S14 and S15, and which were installed in 2005. A third raw sand receiving silo was later installed in 2008, for which the corresponding stack number is S22. The original plans called for each of these three silos to have a minimum exhaust height of 60 feet above the ground, as reflected under Conditions I.A.1.a.(2)(a), I.B.1.a.(2)(a) and I.C.1.a.(2)(a) of the facility's operating permit (WDNR Permit No. 627005280-P10).

As part of the records review during a recent WDNR inspection on September 12, 2012, the engineering drawings for the silos were reviewed, which indicated that the as-built stack heights for these silos were less than originally planned. Atlas subsequently measured these stacks and confirmed that the information on the drawings was accurate. It was also noted that the balance of the permitted stacks for both Tower A and Tower B (*i.e.*, constructed under WDNR Permit No. 07-JAJ-042, issued on April 25, 2007) were higher than respective minimum permitted stack heights, and that two of these stacks had smaller diameters (*i.e.*, stacks S20 and S120). The as-built and permitted stack heights (along with select stack diameters) are as follow:

<u>Tower A</u>	<u>Point</u>	<u>As Built Discharge Height (Diameter)</u>	<u>Permit Height (Diameter)</u>
S14, C14	Silo Vent	46' 7-5/16"	60'
S15, C15	Silo Vent	46' 7-5/16"	60'
S22, C22	Silo Vent	52' 2-3/16"	60'
S20, C20	Baghouse	18' 6-3/16" (28" Ø)	16' (30" Ø)
S50, C50	Scrubber	90'	75'
<u>Tower B</u>	<u>Point</u>	<u>As Built Discharge Height (Diameter)</u>	<u>Permit Height (Diameter)</u>
S114, C114	Silo Vent	65' 5-5/8"	60'
S115, C115	Silo Vent	65' 5-5/8"	60'
S120, C120	Baghouse	18' 6-3/16" (28" Ø)	16' (30" Ø)
S150, C150	Scrubber	92' 3"	75'

In light of these variations from the permitted stack parameters, the ambient air quality analysis has been updated to determine if the as-built stack conditions would have demonstrated attainment with the applicable PM₁₀ air quality standard at the time that these sources were constructed.

Modeling Methodology

The modeling analysis was completed using the latest version of the AERMOD dispersion model (Version 12060). Some additional modeling details included the following items.

- Use of a five year set of meteorological data from the National Weather Service Eau Claire site for the years 2006-2010. These data were processed by the Wisconsin DNR.
- Use of the BPIP PRIME computer algorithm to calculate wind direction dependent building dimensions.
- Use of the AERMAP terrain processor program to estimate receptor elevation. The receptor network used consists of receptors spaced at 25 and 50 meter intervals.
- Use of regulatory default model options for the AERMOD model.

All of the above features are consistent with the earlier analysis with the exception that the latest current version of the AERMOD model has been used as well as the most current set of meteorological data for the area. The as-built stack parameters for the emission sources considered in the analysis are presented in Table 1.

Table 1
Stack Input Parameters for Atlas Resin Proppants

Model ID	Description	X(m)	Y(m)	Emissions (lb/hr)	Hgt.(m)	Temp(K)	Exit Velocity (m/s)	Diameter (m)
S14	silo	649566.6	4911450	0.1	14.2	293	0.001	0.05
S15	silo	649563.6	4911448	0.1	14.2	293	0.001	0.05
S50	scrubber	649571.1	4911430	1.5	27.4	293	9.7	0.61
S20	baghouse	649582.4	4911420	1.0	5.64	293	13.7	0.711
S114	silo	649564.6	4911454	0.1	19.96	293	0.001	0.152
S115	silo	649561.6	4911452	0.1	19.96	293	0.001	0.152
S150	scrubber	649556.1	4911462	1.5	28.12	293	9.7	0.61
S120	baghouse	649550.8	4911483	1.0	5.64	293	13.7	0.711
S22	silo	649567.3	4911455	0.1	15.9	293	0.001	0.05

Modeling Results

The AERMOD dispersion model was executed using the stack parameters and emission rates listed above. The results are summarized in Table 2. These results show that with the as-built stack parameters the facility still attained the PM₁₀ NAAQSs at the time that they were constructed.

Table 2
PM₁₀ Air Quality Results for Atlas Resin Proppants, LLC - Taylor

Year	Highest 2 nd Highest 24-hour (µg/m ³)	Highest Annual (µg/m ³)
2006	76.2	11.2
2007	82.6	15.3
2008	77.5	13.0
2009	74.3	15.5
2010	75.7	16.3
Worst Case	82.6	16.3
Background	29.4	10.1
Total	112	26.4
Air Quality Standard	150	50



December 3, 2012

Mr. Martin Sellers, P.E.
Air Quality Engineer
Wisconsin Department of Natural Resources
West Central Region – La Crosse
3550 Mormon Coulee Road
La Crosse, WI 54601

Subject: Atlas Resin Proppants, LLC (FID #627005280)
Response to Letter of Noncompliance, Dated: 9/27/12

Dear Mr. Sellers:

We have resolved the matter raised in the Letter of Noncompliance issued to Atlas Resin Proppants in Taylor, WI on 9-27-12. Specifically, as discussed in a November 30, 2012, e-mail, the silo filter stacks for S14, S15 (formerly 46.6 feet) and S22 (formerly 52.2 feet) have been extended to 60 feet above ground level as stated in our operations permit #627005280-P10.

The drawings that reflect these changes are located in Attachment 1.

Your time and consideration of this matter are much appreciated, and we look forward to your written response. Should you have any questions, please call our environmental consultant, Mr. Joe Liello (TRC Environmental Corporation) at 262-901-2135, or me at 715-662-2200, ext. 231.

Sincerely,

A handwritten signature in black ink that reads "Erica R. Grant". The signature is written in a cursive, flowing style.

Erica R. Grant
Operations Manager
Atlas Resin Proppants, LLC

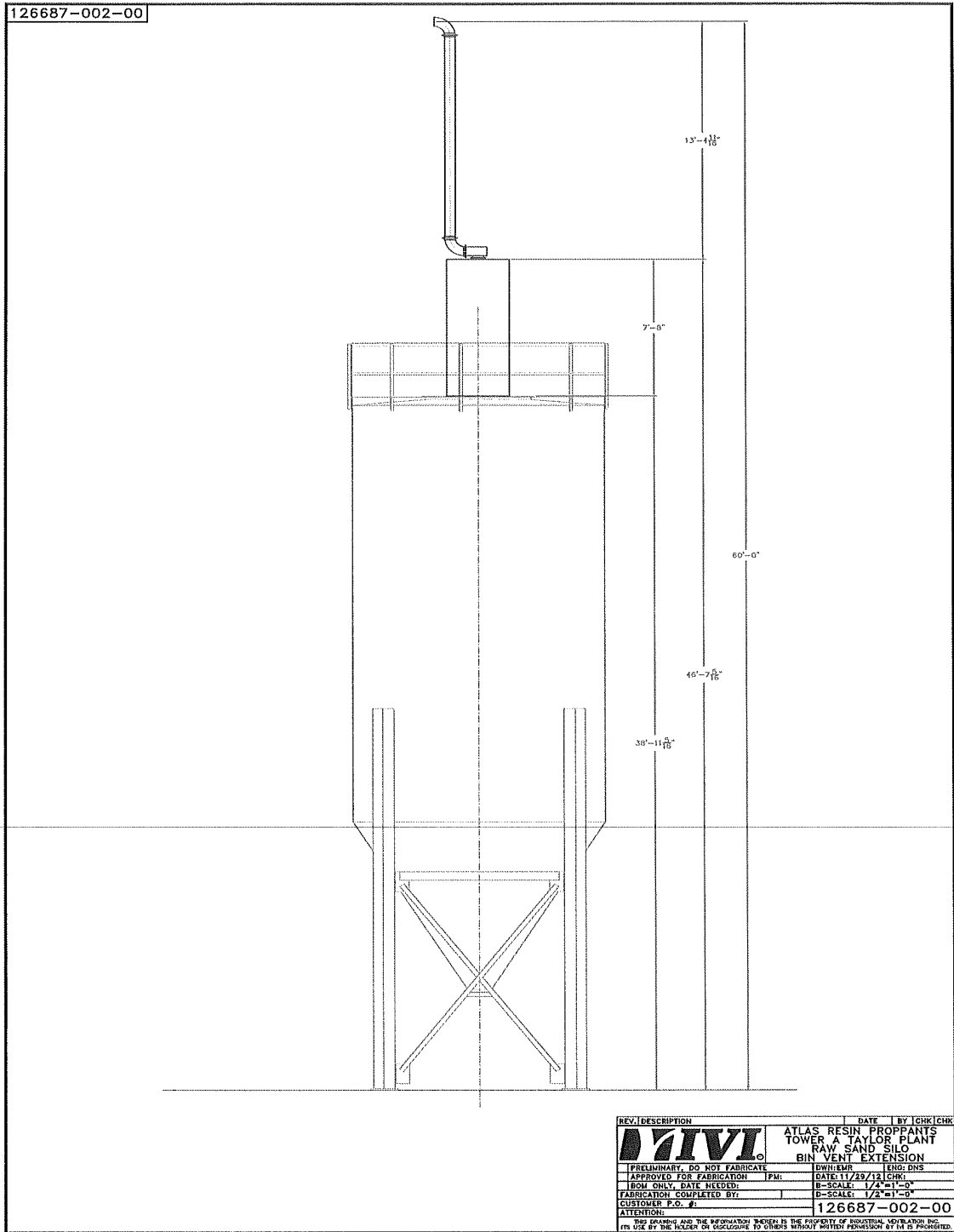
Enclosures

ATTACHMENT 1

Raw Silo Filter Stack Drawings

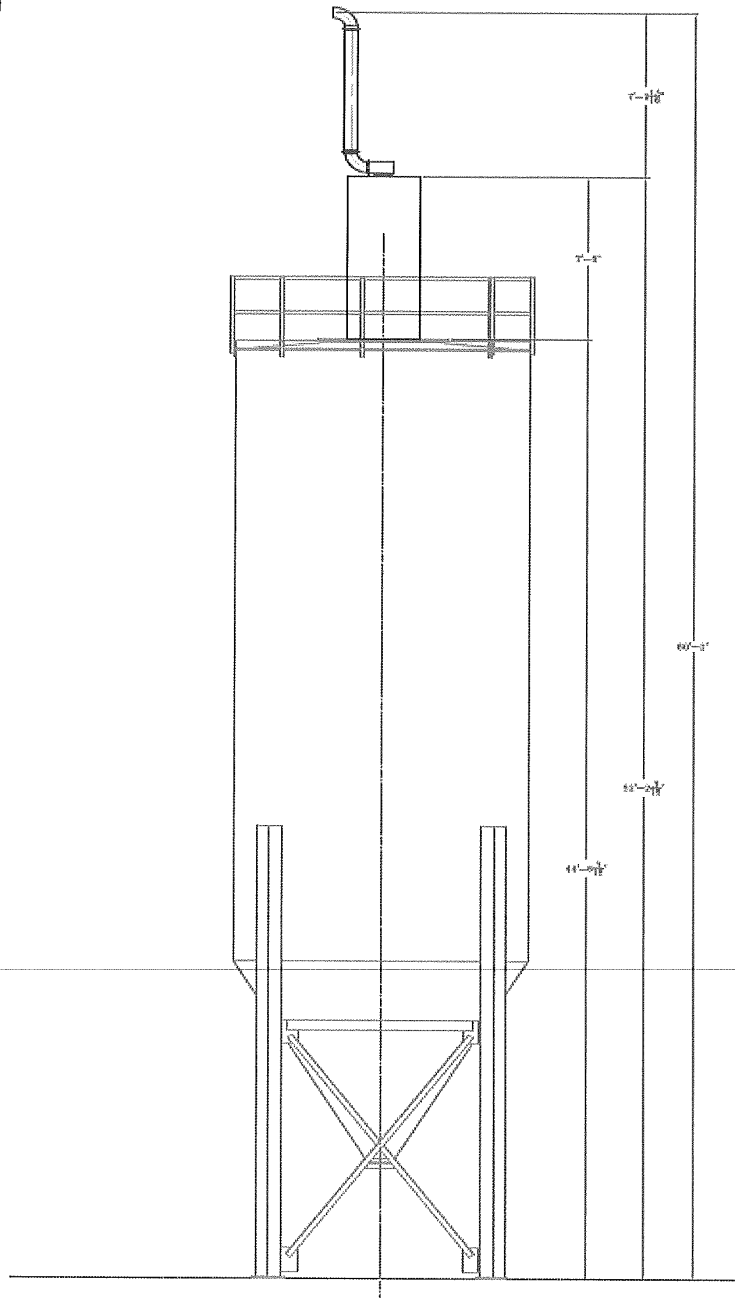
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Stack S14 and S15



Stack S22

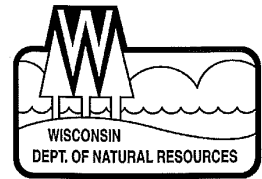
126687-001-00



REV. DESCRIPTION	DATE	BY	CHK
ATLAS RESIN PROPAGANTS TOWER A TAYLOR PLANT RAW SAND SMO RR VENT EXTENSION			
PRELIMINARY, DO NOT AMEND	DATE	BY	CHK
APPROVED FOR FABRICATION	DATE	BY	CHK
ISSUED ONLY, DATE HEREIN	DATE	BY	CHK
FABRICATOR COMPLIANT BY	DATE	BY	CHK
CUSTOMER P.O. #	126687-001-00		
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July 31, 2013

Erica Grant, Operations Manager
Atlas Resin Proppants, LLC
P.O. Box 100
Taylor, WI 54659

FILE CODE: 4530
FID#: 627005280

Subject: Close-out of Letter of Non-compliance

Dear Ms. Grant:

The Wisconsin Department of Natural Resources (Department) issued Atlas Resin Proppants, LLC (Atlas) a letter of non-compliance on September 27, 2012, for alleged violations of various permit conditions related to stack parameters not within ranges specified by permit.

Atlas responded on October 19, 2012, and December 3, 2012, regarding the issue, and had modified the stack heights to be within specified permit requirements. In the interim of modifying the stack heights, Atlas also provided the department with an updated air dispersion analysis (modeling) demonstrating attainment of the ambient air quality standards with the prior stack parameters (as initially constructed). Therefore, the department has decided to issue this close-out letter and to take no further action at this time, concerning the September 27, 2012, letter of non-compliance.

If you have any technical questions pertaining to the Department's Air Management regulations, please contact me at 715-838-8387.

Sincerely,

Jeffery Johnson, P.E.
Environmental Engineering Supervisor

cc: Marty Sellers, DNR - La Crosse
Martha Makholm, DNR - AM/7 (e-copy)
Robert Lathrop, Atlas Resin Proppants, LLC (e-copy)